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ABSTRACT

The theme developed in this paper is that major improvements could be made in the research acquisition and utilization process for preservice teacher educators and that this improvement would constitute important faculty development. Efforts to improve the way professors acquire and utilize research on teaching must be based on two assumptions: that the body of research is adequate and that it is available to them. This paper begins with an exploration of these two assumptions. It then turns to the way preservice teacher educators and school district-based inservice teacher educators acquire and utilize this body of research. Similarities and differences in research acquisition and utilization for professors and district-based inservice educators are explored. Training as a vehicle for research acquisition and utilization is considered, and the role of networks in research utilization and institutional support for faculty development are discussed. Implications are developed for how faculty development could proceed based on this analysis. (JD)

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RESEARCH UTILIZATION STRATEGIES FOR PRESERVICE
AND INSERVICE TEACHER EDUCATORS

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A paper presented in the symposium on research utilization strategies for teachers and teacher educators at the Annual Meeting of the American Educational Research Association in Washington, D.C.. April, 1987.

Faculty development of university-based preservice teacher educators is an important yet complex problem. A major dimension of the problem is the predominant way teacher education professors and clinical staff acquire and utilize research about teaching. By "acquire", I mean how they become informed about the research on teaching and by "utilize" I mean how the research influences their own thinking as well as how they teach it to beginning teachers. A theme to be developed in this article is that major improvements could be made in the research acquisition and utilization process for preservice teacher educators and that this improvement would constitute important faculty development for them.

Efforts to improve the way professors acquire and utilize research on teaching must be based on two assumptions: that the body of research is adequate and that it is available to them. This article begins with an exploration of these two assumptions. It then turns to the way preservice teacher educators and school district-based inservice teacher educators acquire and utilize this body of research. Similarities and differences in research acquisition and utilization for professors and district-based inservice educators are explored, and implications developed for how faculty development could proceed based on this analysis.

There has been a dramatic expansion of the research base on teaching and learning in the last decade. One major dimension of the research is a focus on classroom management skills, social interaction and group processes skills in combination with

instruction strategies. This dimension can be characterized as the "skills and strategies" view of teaching and has been summarized in several ways. Berliner (1984), Brophy and Good (1985), and Rosenshine and Stevens (1985), provide a general synthesis of this research as it relates to teaching strategies for specific content and for students at specified grade levels. The research has also been synthesized around adapting teaching to differences among learners, teaching of different subject matter, and classroom management (Wittrock, 1985).

The research has also been synthesized into training manuals and materials around a set of general teaching strategies by Stallings (1984) and Hunter (1984), for example, and around topics such as classroom management for elementary (Evertson, et al, 1981) and junior high schools (Emmer, et al, 1982). Research on teaching has also been applied in specific curriculum content areas. For example, Good and Grouws (1979) have developed instructional packages in math that explicitly incorporate this research and provide training for teachers to use the packages. Finally, the skills and strategies dimension of the research on teaching and learning has also been summarized in terms of teacher competencies. Major projects to translate the research into a set of teacher competencies have been carried out in Florida, Georgia, Washington, and other states.

Another dimension of the research on teaching and learning focuses on teacher decision-making and cognition as well as student cognition and learning. Clark and Peterson (1985) have

summarized this research as it applies to teachers. These and other researchers have found ways to teach the insights from the research to teachers. Their instruction of teachers includes the use of simulation materials, video tapes and other instructional approaches. The application of the research in this area, however, is less direct. Clark and Peterson (1985) argue that, "training teachers in a particular model of interactive decision making is premature." Instead, the focus should probably be on, "training teachers to perceive, analyze and transform their perceptions of the classroom in ways similar to those used by effective teachers."

Adequacy of the Research. But some may ask if the research on teaching is adequate to begin active dissemination of it? Ultimately, the adequacy of the research on teaching is a complex and value-laden issue (Buchmann, 1983). More pragmatically, most researchers (Berliner, 1984; Clark, 1984; Clark and Lampert, 1986) and policy makers view it as an adequate but not perfect basis for guiding the practice of teacher education both at the preservice and inservice level. By adequate, they mean that the research provides probabilistic yet dependable statements about the relationship between teaching and learning even though the statements are of limited generalizability in terms of subject content, grade level and student characteristics.

More importantly, policy makers and researchers are acting on this assumption of adequacy of the research. They are actively involved in applying this research through a variety of

means such as state laws and regulations, and funding for major research utilization efforts such as by the regional labs.

Availability of the Literature. Beyond the issue of the adequacy of the research is the issue of whether the research is available to professors who operate most teacher education programs. Three themes are striking about the availability of the research on teaching to teacher educators. First, the literature is a semi-fugitive literature where many of the important original studies are difficult to obtain. Often, original studies are final reports which receive only limited distribution within the informal network of researchers and funding source project monitors. Many studies are reported as professional papers, such as AERA papers, which only later are available to the general profession through ERIC. The professional papers often provide only some of the findings and vary considerably in quality and provision of detail. Only some of the studies end up as journal articles and these are published in such diverse journals as to make it difficult for the typical professor to find them. Despite the high quality reviews of the research in a recent publication (Wittrock, 1985), the semi-fugitive nature of the literature continues to make research acquisition and utilization a problem.

Compounding the problem is the distinction between the research as a body of knowledge and as a written literature. The written summaries or distillations of the research often are a disservice; they mask the richness of the original studies and

fail to make clear the limitations in the generalizations about the findings. In turn, the researchers often have keen insights about what the findings mean and how the findings can be applied. Yet these insights are only partially reflected in the written literature. Recognizing this problem, a task force of leading researchers about teaching recommended that intensive interaction between generators and users of research about teaching be established so that, over time, a cadre of knowledgeable users could be developed. Consequently, the second theme about the availability of the research on teaching is that research exists but as a body of knowledge known to researchers as much as a written literature.

The third theme is that the body of knowledge is available in many forms. Professional papers, journal articles and occasional papers and reports provide knowledge about the findings from individual studies. More importantly, syntheses of the research are available as literature reviews and statements of teacher competencies. However, these materials still provide information at the knowledge level regarding the research. Researchers have gone beyond the knowledge level to provide training packages and practitioner manuals to enhance an application orientation to the research. Many of the packages and manuals emphasize skill development on the part of the users; knowledge of the findings isn't considered enough. In many cases, the researchers have established long-term interaction with users, and have trained cadres of trainers who, in turn, can

assist others in using the research. In short, the research is adequate and available to teacher educators but with the special condition that the research is hard to locate, is often in the heads of the researchers as much as in the written literature and is available in forms that go well beyond providing knowledge about the findings.

Research Utilization Among School District and University Teacher Educators

Definitive data do not exist about the patterns of research acquisition and utilization among university-based preservice teacher educators as compared with school district-based inservice teacher educators. Informal information suggests that the patterns are quite different for the two groups. These patterns of acquisition and utilization will be discussed in terms of four topics: a) knowledge acquisition strategies, b) the role of training in acquisition and utilization, and c) the use of networks and group interaction in acquisition and utilization, and d) institutional support for faculty development.

Knowledge Acquisition Strategies. Some professors acquire the research about teaching by participating in its generation. Guba and Clark (1978), however, has indicated that the number of knowledge-producing universities is quite small and Joyce, Yarger and Howey (1977) have report that teacher education professors produce very little published material on any subject with the typical professor producing an article only once in three years. Acquiring the research on teaching by being a generator of it is

probably not a prime acquisition strategy for professors or school district personnel. Ironically, recent efforts to involve district-based staff as partners in research on teaching have received national attention.

Acquiring the research on teaching by reading the literatures also a well known strategy. In this discussion, I want to leave aside two special cases: knowledge acquisition at the small number of knowledge generating universities and knowledge acquisition where specific competencies have been mandated by governmental bodies. For other faculty users of the literature on the research on teaching, reading the literature is affected by the "semi fugitive" and abstract nature of the literature as previously discussed.

It is hard to tell if faculty read the literature more thoroughly than do district based inservice teacher educators. Lanier and Little (1985) summarize an extensive literature on teacher education to conclude that, "mutually reinforcing factors explain why teacher education has been kept from being as academic and intellectual as it probably deserves to be, and why change is likely to be slow." By implication, teacher education faculty are not well read. In fact, Lanier and Little report that, "academically capable faculty find greater rewards when they place increasing distance between themselves and teacher education."

There are important differences, however, in beliefs about the literature and characteristic acquisition strategies between

teacher education faculty and district staff. University-based teacher educators are more likely to see the research as problematic: difficult to digest and believe, hard to apply, and limited in its implications for practice. Berliner (1984) characterizes this pessimistic view as seeing the glass as half-empty rather than half-full when viewing the potential of the research on teaching. He explains that, "because of promises unkept, societal and unique professional conditions resulting in a pervasive mistrust of research (and researchers) in education, and the recency of the development of the field of inquiry called research on teaching, we find the professional educator slow to respond to the remarkably bountiful yield of knowledge acquired over the last two decades." Faculty are also more likely to utilize the research by having students read textbooks which reinforce this view of the research.

In turn, district staff developers are more likely to see the research as providing clear and direct answers about effective teaching. Using Berliner's analogy about the half-full glass, district staff are, in general, the optimists: they see the research as promising. Similarly, staff development providers are more likely to utilize the research in the form of workshops where the "direct and clear" view of the research is communicated to teachers. The materials shared at the workshops reinforce this accepting perspective.

Training as a Vehicle for Research Acquisition and Utilization. Differences between the two groups of teacher

educators are increased when the role of training in knowledge acquisition and utilization is considered. Research about research utilization itself is calling into question the value of the "knowledge about" strategy. Research about training transfer shows that "knowledge about" leads to very little teaching skill development or application of the skills in classrooms. Joyce and Showers (1983) have summarized this literature in developing their training model. They report that substantial levels of transfer are achieved only when coaching is included. In addition, Bandura (1982) has found that verbal persuasion is an ineffective strategy for getting people to change their behavior; "knowledge about" does not lead to new practice. Instead, he has identified skill mastery and knowledge of results as the critical strategies for achieving change. Moreover, he points out that commitment to the change typically follows rather than proceeds skill mastery and knowledge of results. This combination of skill mastery, knowledge of results and subsequent commitment to the change leads to a sense of self-efficacy that has implications for continued utilization of the new skills and knowledge.

District staff are much more likely to have acquired the research through staff training that included the 5 steps of the Joyce and Showers (1983) training model: 1) theory/information, 2) modeling, 3) practice, 4) feedback, and 5) on-site coaching for application. More specifically, district staff are more likely to have practiced and received feedback around specific

skills and are more likely to have received coaching in applying these skills in classrooms. District staff are also more likely to utilize the research by having teachers acquire the findings through training as well. In turn, professors appear to retain the practice that "knowledge about" is sufficient as a utilization strategy; training is seen as not desirable or necessary for teachers in preservice programs. Supervision in student teaching should not be seen as coaching in that the supervision typically does not follow the critical middle steps in the Joyce and Showers model and is often only loosely connected to the knowledge taught in the university based portion of the program.

Moreover, district staff are persuaded to acquire and utilize the research on teaching in very different ways than are university-based faculty. While these faculty acquire "knowledge about" the "problematic" literature, district staff developers practice, receive feedback and coaching about the "synthesized" skills so that they have an entirely different basis on which to judge the worth of the research. Based on Bandura's work, the acquisition strategies experienced by staff developers are more likely to lead to use of the research in that staff developers acquire skill mastery and observe results as a basis for deciding the worth of the research.

The Role of Networks in Research Utilization. District staff developers and university-based faculty also differ on the nature of their networks as these relate to acquisition and

utilization of the research on teaching. In recent years, district staff have evolved their own networks which link them to regional agency, state department and regional lab colleagues, and the researchers on teaching. It is through these networks that the dissemination of the research on teaching takes place in the form of training. Across the country, the researchers themselves or colleagues who have been trained by the researchers are providing training to local staff developers on the use of the research on teaching. Training through these networks helps overcome some of the problems of the written literature: training provides sustained contact with the researchers, it helps fill in the gaps of knowledge which the written literature does not address, and it provides more up-to-date information than the written literature often provides.

In contrast, the typical teacher education faculty member probably has less sustained contact with the researchers than does the more progressive school district-based staff developer. Moreover, this faculty contact is more likely to be in the context of hearing presentations about the research, the "knowledge about" level of information, which is less likely to lead to knowledge transfer or utilization.

The researchers on teaching have networks of their own, and recent trends in the nature of these networks could substantially impact on faculty development. Many of the well known researchers on teaching tend to be research center-based or be professors at regular universities who have spent time as

colleagues at research center in the past. This orientation, I believe, strengthens an interest in producing research products which need to be disseminated and a network of research and project monitor colleagues who know of and can acquire the completed research. For a variety of reasons, the semi-fugitive nature of the literature and the nature of the network of research colleagues are closely linked.

Recently, the researcher networks and the state/regional/local district networks have become more closely linked through governmental policy initiatives, similar views about the value of the literature about teaching, consulting arrangements and other reasons. The confluence of these networks will be strengthened by the mandate and funding for the regional labs which must help apply research to policy makers and local practitioners.

The confluence will also be aided by the great advances in the literature on research utilization itself and the conscious application of this literature in facilitating the use of the research on teaching. Love (1985) and Huberman (1986) present conceptual maps of the research utilization process. Variables and utilization strategies from the literature on research utilization are well known to the regional lab staff and have been incorporated in their network designs.

In contrast, teacher education faculty are isolated within the university and have only weak contact with other preservice programs, regional labs or even school districts. It is not even

clear that these faculty see themselves as needing to be receivers of research about teaching. Vaughan (1986) summarized the characteristics of research utilization projects in teacher education which were recently funded by the federal government. He reports, "frequently overlooked, however, was the parallel need for faculty development at the IHE (institution of higher education). There were many proposals with ongoing seminars planned in which both IHE and LEA faculty would participate, but they frequently seemed to be focused on LEA staff for development and on IHE staff for collaboration." Vaughan concludes, "this lack of attention to IHE faculty could undermine improvement efforts as it seems to represent a tacit assumption that only practitioners and policymakers at the LEA levels need more research and research-use orientation and skills."

Institutional Support for Faculty Development. Districts are also more likely than colleges and universities to provide the institutional support for the knowledge acquisition and utilization of the research on teaching to take place. Districts staff development budgets have never been large except by comparison to the faculty development budgets of the typical university-based program. Districts have been willing to spend these resources on training of staff. Districts also have leaders who see their role as providing this development and are skilled in the staff development process, including training and coaching, which would enhance the training transfer process. Finally, districts have found ways to institutionalize this

training within the regular classroom by training administrators to facilitate this transfer process and creating a cooperative climate.

In turn, Lanier and Little (1985) conclude that, "universities have never made and do not make investments in teacher education that are commensurate with talk about the importance of teacher education." Nor do university-based teacher education programs typically have the leadership, the training orientation nor the coaching to assist the utilization of research about teaching. There are pleasant exceptions, however, like the effort in Maryland where the state department of education and selected university-based teacher education programs have established a Teaching Effectiveness Network. In a series of workshops, IHE faculty receive training from researchers about the research on teaching and are provided with coaching opportunities to help them use this training in their own settings (Arends, 1983; 1986). This seminar presents other noble exceptions as well.

Implications for the Development of Teacher Education Faculty

Teacher education faculty development through improved research acquisition and utilization will take sustained effort at the local, regional and national levels. For local sites, it is important that teams of faculty see the research as a glass half-full rather than as a glass half-empty; that the research has promise and utility instead of only limitations. Moreover, teacher education faculty will typically need sustained training

in the research both to strengthen their own understanding of it and to help them teach others about it. This training will need to move far beyond the knowledge-about stage and must include multiple demonstrations, practice and feedback as well as intensive coaching to facilitate the transfer to the natural teaching settings of the teacher education faculty.

Teacher education faculty will also need new networks which provide sustained linkage with the researchers on teaching. To accomplish this, program leaders will need to use the best of what is known about being user organizations for research utilization. Huberman (1986) summarizes many research utilization factors in terms of categories of variables displayed in Figure 1. Behind each factor is a set of research findings and practical insights which can guide the design of specific networks which support the utilization of the research on teaching in different local settings.

State and regional agencies such as state departments of education and regional labs will probably need to play a central role in establishing these networks or in including the university-based teacher education faculty in already established ones. Fortunately, staff in both of these agencies have considerable experience in designing and maintaining research utilization networks. Unfortunately, no design can easily overcome the most critical problem: the willingness of many teacher education faculty to see themselves as needing to be better research consumers, and so to join in networks where they

can receive sustained contact and training about the research on teaching.

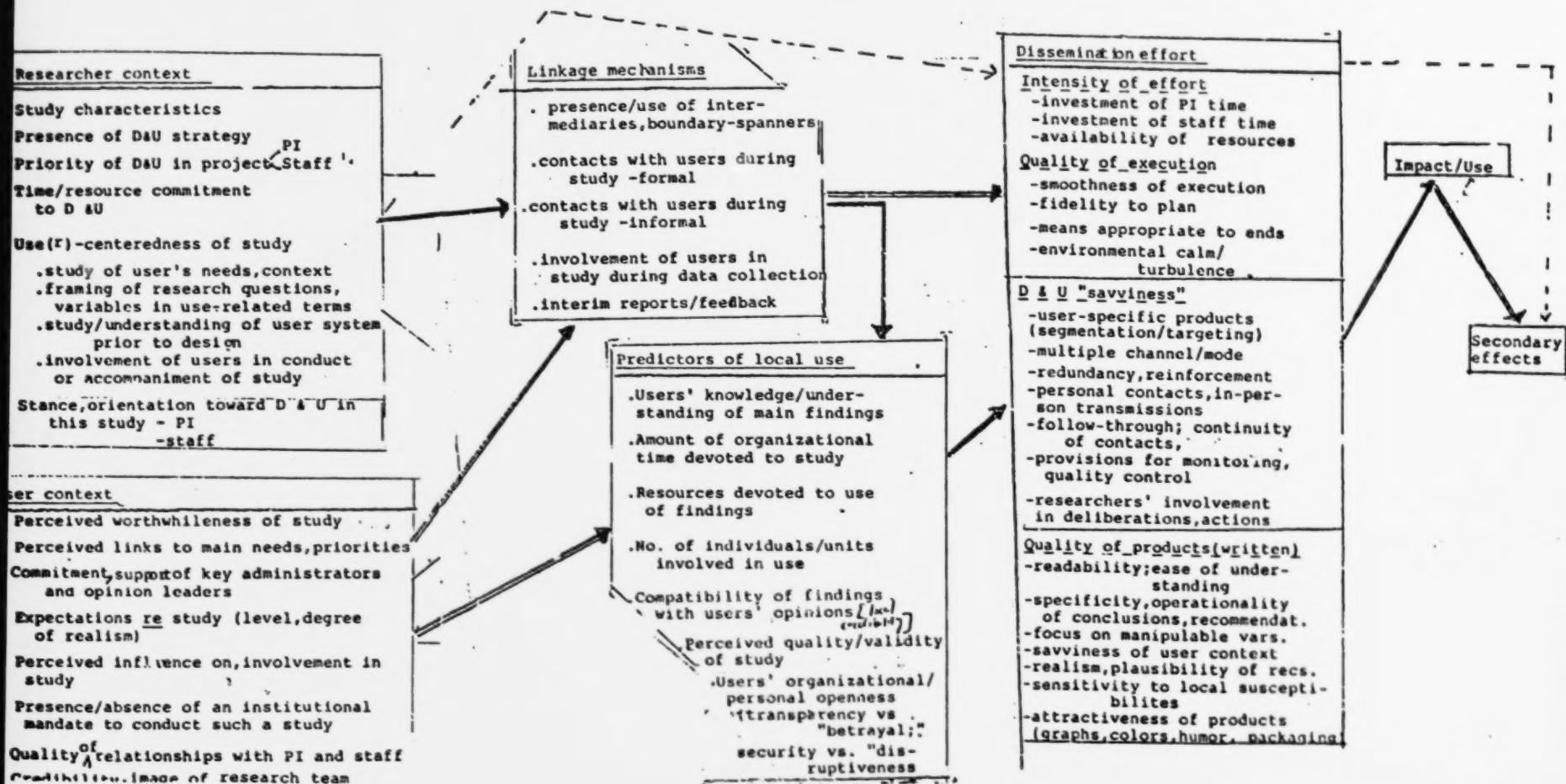


Figure 1
Huberman's Research Utilization Model

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